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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,732

04/15/2004

T. Scott Engle

IFC376

8812

50488

7590

10/17/2005

ALLEMAN HALL MCCOY RUSSELL & TUTTLE LLP  
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EXAMINER

MAHONEY, CHRISTOPHER E

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/825,732

Applicant(s)

ENGLE ET AL.

Examiner

Christopher E. Mahoney

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12, 14-23 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12, 14-23 and 25-31 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                                  |                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                             | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>Nov 8, 2004</u> . | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Allowable Subject Matter***

The indicated allowability of claim 11 is withdrawn in view of the reference(s) to Hoffman. Rejections based on the newly cited reference(s) follow.

Claims 12, 14-23 and 25-31 are allowed.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-7, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419). Hoffman teaches a projection unit comprising: a projector 44, the projector positioned substantially adjacent (figures 1-2) a display screen 22 and configured to generate an image on the display surface; and a moveable element 14/46 supporting the projector configured to enable selective lateral positioning of the projector to move the projector from a storage position (fig. 7) to an operation position (figure 1). The projector further comprises a device (col. 4, lines 2-4) which may be used to bring the image into focus in at least one of the lateral positions. Hoffman does not teach that the projector comprises a wide angle lens system. Holder teaches in col. 1, line 64 that it was known to use a wide angle lens system in a collapsible projection system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Holder for the purpose of minimizing the size of the projection unit. The screen is being interpreted as a wall between the viewer and the interior optics. Regarding

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claims 5, Hoffman in view of Holder discloses the claimed invention except for the angle of projection. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a 30 degree angle for the purpose of utilizing an optimum range. The applicant should note that it has been held that where the general working conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419) and further in view of Kuwa (U.S. Patent No. 6,624,952). Hoffman in view of Holder teaches the salient features of the claimed invention except for a relay lens generating a distorted image and a wide angle lens canceling out the distortion. Kuwa teaches a wide-angle lens system having a first stage (CyrR) to create a distorted intermediate image and a second, wide angle lens stage IGTFI that causes distortion to substantially cancel the distortion from the intermediate image and to project a substantially non-distorted image corresponding to the intermediate image on the screen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Kuwa for the purpose of providing a high performance and high resolution.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Mahoney whose telephone number is (571) 272-2122. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Ch Mahoney', is positioned above the printed name.

Christopher E Mahoney  
Primary Examiner  
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